

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HEADWATER RESEARCH LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,

Defendants.

Case No. 2:24-cv-00228-JRG-RSP

JURY TRIAL DEMANDED

HEADWATER CLAIM CONSTRUCTION REPLY BRIEF

**TABLE OF EXHIBITS
& ABBREVIATIONS**

Ex.	Description	Abbreviation
1	U.S. Patent No. 9,609,510	'510 patent
2	U.S. Patent No. 11,096,055	'055 patent
3	U.S. Patent No. 11,405,429	'429 patent
4	Joint Claim Construction and Prehearing Statement, Dkt. 62 (E.D. Tex. May 17, 2025)	JCCS
5	Ex. A to Joint Claim Construction and Prehearing Statement, Dkt. 62-1 (E.D. Tex. May 17, 2025)	JCCS Ex. A
6	Samsung's Petition for <i>Inter Partes</i> Review of '510 Patent, Paper 2, IPR2025-00483 (PTAB Feb. 10, 2025)	'510 IPR Pet. 1
7	Samsung's Petition for <i>Inter Partes</i> Review of '510 Patent, Paper 2, IPR2025-00484 (PTAB Feb. 10, 2025)	'510 IPR Pet. 2
8	Samsung's Petition for <i>Inter Partes</i> Review of '055 Patent, Paper 2, IPR2025-00481 (PTAB Feb. 26, 2025)	'055 IPR Pet.
9	Samsung's Petition for <i>Inter Partes</i> Review of '510 Patent, Paper 2, IPR2025-00482 (PTAB Jan. 28, 2025)	'429 IPR Pet.
	Plaintiff Headwater Research LLC	Headwater
	Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.	Samsung
	<i>Inter Partes</i> Review	IPR
	Person of Ordinary Skill in the Art	POSITA

Samsung's indefiniteness assertions for the three remaining disputed terms fail. Headwater highlights several general issues at the outside. *First*, none of the three terms are terms of degree. Nor does Samsung's brief assert (much less show) that they are. In these circumstances, one would expect Samsung to identify two or more alternative meanings that render the term ambiguous. But it never has—not in the meet and confers for claim construction, nor in Samsung's opposition brief. Therefore, no adequate showing of indefiniteness has been made. In meet and confers, Samsung's primary argument was that each term was insufficiently described in the specification. But the briefing has shown that to the contrary, each term is described and supported.

Second, as shown in opening, Samsung has submitted three IPRs on each of the patents that undermine its indefiniteness assertion for each term. Headwater is not saying that filing an IPR always precludes a finding of indefiniteness. But Headwater did more than that and cited Samsung's understanding and application of each term in IPRs. And as to the substance of the IPRs, Samsung offers no response at all. This shows that the discussion in Headwater's opening brief was correct, and the Court should credit it. Samsung's understanding in IPRs is consistent with Headwater's discussion of each term and the patent specifications.

Third, Samsung failed to present an expert declaration or sufficient evidence that the disputed terms are indefinite. Headwater is not arguing (contrary to the strawman attack) that Samsung can never prove indefiniteness without an expert declaration. Rather, the point is that in this case and for these terms, no sufficient evidence was offered. Each of the terms are technical phrases that are informed by the surrounding claim language, dependent claims, and specification. And in view of the intrinsic evidence, Samsung fails to offer competent evidence that a POSITA would not be able to ascertain the scope of the claims with reasonable certainty. Indeed, the only current opinions are from Samsung's IPR expert, who could (and did) understand them.

I. THE DISPUTED TERMS ARE NOT INDEFINITE

A. “target credential” (’510 patent, claim 1 and dependents)

A “credential” of a mobile device is well-known in the art and extensively discussed in the specification. As the ’510 patent states, “In a wireless network system, mobile devices authenticate with the network system based on *credentials* that are stored on the device and verified by the network system.” ’510 patent at 5:21-23.¹ Examples of credentials include: “a phone number, an international mobile subscriber identifier (IMSI), a mobile station identifier (MSID), a mobile station international ISDN number (MSISDN), a subscriber information module (SIM) identifier, an electronic serial number (ESN), a mobile equipment identifier (MEID), an international mobile equipment identity (IMEI)” and “any other identifying information that uniquely identifies a wireless device, and combinations of these.” *Id.* at 5:23-42; *see also id.* at cl. 23. The ’510 patent further explains that some credentials, such as an ESN or device identifier, are permanently associated with a device. *Id.* at 5:42-45. But other credentials, such as a SIM identifier or phone number, may be moved from one device to another. *Id.* at 5:45-47. These movable credentials can be referred to as “portable credentials.” *Id.* at 5:47-48.

The term “target credential” has a plain meaning based on the individual words “target” and “credential,” which are both used in their ordinary sense. The target credential can be considered a “target” (e.g., goal) of the system based on how it is described in claim 1. The target credential is a pre-defined credential stored in memory of the wireless device (claim [1.pre]-[1.3]). And it is the credential that other credentials—i.e., “a particular credential of the one or more credentials”—are being compared against. *See* claim [1.8] (“determine that the particular credential does not match *the target credential*”).

¹ All emphasis in quoted material added unless otherwise noted.

Headwater didn't propose the construction or definition of "target credential" imputed by Samsung. *See* Opp'n at 6-7. Rather, Headwater explained that the surrounding claim language is consistent with the word "target." Samsung's table purporting to substitute Headwater's construction is therefore unsupported and nonsensical. *Id.* at 7. If anything, it shows that "target credential" is an appropriate label and that no further construction is necessary.

In addition to the claim language, the '510 specification further supports and informs a POSITA's understanding of "target credential." For example, the specification discusses the process of "porting" a phone number to a new device or new service provider. *See* '510 patent at 5:61-6:67. And, according to the patent: "Disclosed herein are systems, devices, and methods that provide for the *updating of device credentials after a phone number port without user intervention.*" *Id.* at 7:1-33. Thus, porting an existing phone number is given as an animating use case of the '510 patent. *See id.* Based on these disclosures, a POSITA would readily understand a phone number to be an example of the term "target credential."

Samsung's other arguments fail to show indefiniteness. It contends that "nothing in the specification" discusses target credential. *See* Opp'n at 8 (arguing the term "appears only in the abstract and claims"). But Samsung already contradicted this argument in the IPR, where it agreed that the '510 specification's descriptions of requested credential "generally align with" the target credential in claim 1. A POSITA would understand this. That the specification gives illustrations with slightly different terminology (such as "requested credential" or "desired credential") is immaterial. These disclosures are still informative and assist a POSITA's understanding. They support the term "target credential" for both definiteness and written description.

Finally, Samsung insists that Headwater define the exact contours of every possible modifier for credential, i.e., "temporary credential," "expected credential," "requested credential,"

etc. Opp’n at 9. But most of the terms Samsung posits are not even claim terms. Nor is this remotely the test for indefiniteness. The question is whether a POSITA would be able to understand claim 1, as written, with reasonable certainty. Here, based on the plain meaning of “target credential,” the claim language, and the specification, the answer is *yes*.

B. “wherein the at least one adaptive service policy control agent applies network service policies from a superset profile that provides capabilities from each of the first and second service profiles” (’055 patent, claim 8)

Samsung argues that dependent claim 8 of the ’055 patent is indefinite because it allegedly recites “a function that contradicts the function recited in” independent claim 1 from which it depends. Opp’n at 10 (arguing that the claims themselves “create an irreconcilable ambiguity”). Samsung is wrong; no such contradiction has been shown.

Claim 1 recites, in part, a “wireless end-user device comprising . . . at least one adaptive service policy control agent to enforce network service policies associated with the selected one of the first and second service profiles.” Samsung doesn’t contend that any part of the claim is indefinite. Claim 1 is a comprising claim and does not contain negative limitations. For example, the claim doesn’t recite that the agent enforces [“*only*”] network service policies associated with the first or second service profile. Nor does the claim say that the agent enforces policies associated with one profile [“*but does not enforce policies associated with any other profile*”].

Claim 8 depends from claim 1 and recites that the “adaptive service policy control agent applies network service policies from a superset profile that provides capabilities from each of the first and second service profiles.” Claim 8 is narrower than claim 1 and introduces the term “superset profile.” It describes an additional requirement that the agent applies policies from a superset profile. This is consistent with claim 1, and a system can meet both claims.

Samsung’s argument for impossibility is difficult to understand and appears based on

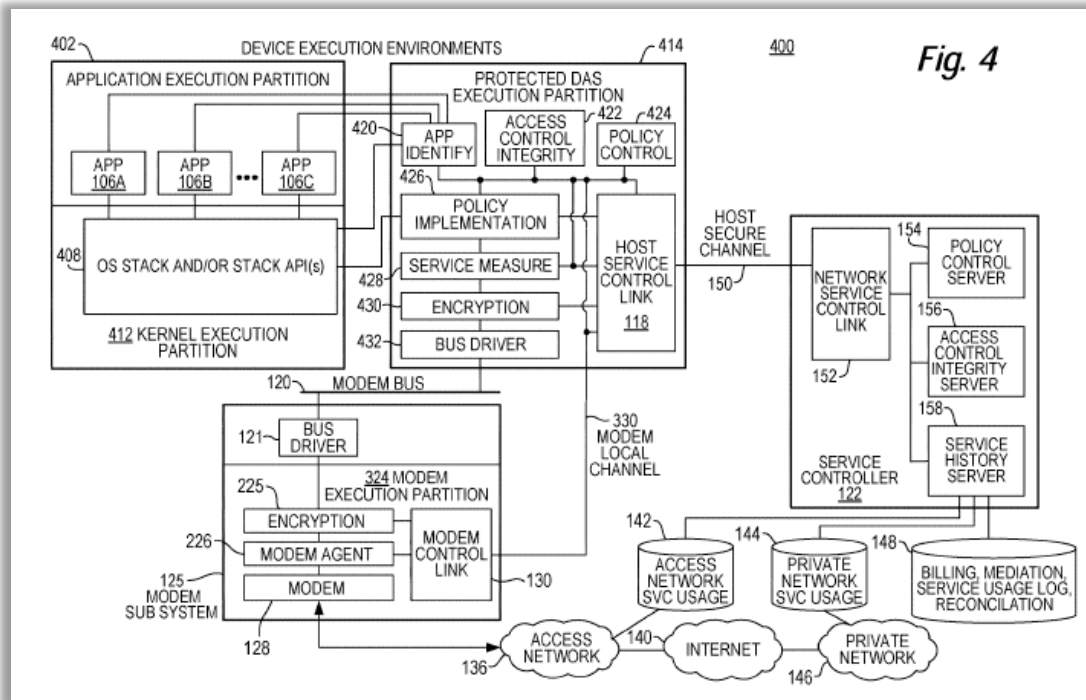
misapprehending the claims. For example, the language of claim 1 doesn't exclude the "first profile" from being a superset profile or part of superset profile. Nor does it exclude a third profile (that provides capabilities from the first and second profile) in addition to the first and second.

Samsung's other arguments fail. Its position in IPR undermines any argument that claims 1 and 8 are mutually exclusive or contradictory. In the IPR, it asserted that prior art Bajko's "common service profile" would meet the elements of claims 1 and 8. Nor does Samsung address the '055 patent's extensive disclosures regarding a "superset profiles" cited in Headwater's opening brief. Samsung concedes that the patent describes what a "superset profile," which alone is strong evidence that claim 8 is not indefinite. Again, Samsung's argument is based on its unsupported assertion that claim 8 would "require an impossibility." Opp'n at 12. Nor is an alleged lack of enablement (as Samsung implies) a proper basis for indefiniteness.

C. "secure modem subsystem" ('429 patent, claim 1)

The term "secure modem subsystem" in claim 1 and dependents of the '429 patent is not indefinite. As Headwater explained, the specification and figures demonstrate that a "modem subsystem" is a subsystem of the device related to a modem (and not limited to the modem itself). Samsung doesn't argue that the "subsystem" is all within the modem; nor is that interpretation supported by the patent. Rather, "modem" modifies/describes the subsystem of the device.

The '429 figures depict, as an example, a partition containing the components that allow the modem (e.g., the modem itself, the drivers for the modem, and the channel over which it communicates) to operate in a larger system:



The specification and figures provide numerous examples and description of a modem “subsystem” or “sub system.” *See, e.g.,* ’429 patent at Abstract, 5:1-7:31, 9:4-11:46, 14:8-15:8, 15:37-16:38; Figs. 1-11, and associated written description; claims 1-7, 10-12.

Samsung’s arguments about the word “secure” in isolation likewise fail. Samsung doesn’t challenge the word “secure” for other terms in the claims. This undermines the argument for “secure modem subsystem” disputed term, which Samsung fails to show is a special case or needing extra explanation. Samsung is also wrong that the specification provides no guidance.

For example, as illustrative and informative examples, the ’429 patent states:

As shown in FIG. 1, a separate secure modem control channel (e.g., modem secure channel #1 (132) through modem secure channel #N (134)) that is distinct from the host secure control channel 150 is provided. This separate modem control channel can either be implemented over the higher network layers of the device or over the lower access network layer so that special access to access network resources is required to even connect to the modem DAS agents 126 thereby further enhancing service control related security.

’429 patent at 11:1–10; *see also* 2:49-54 (describing ways to provide “a secure modem for device assisted services,” e.g., by “providing a secure communication link between the modem/modem

driver and a service processor and/or agent on the device, such as a communications device or an intermediate networking device”).

II. CONCLUSION

For the foregoing reasons, the Court should find that the disputed terms are not indefinite.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on July 14, 2025, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF System per Local Rule CV-5(a)(3).

/s/ Marc Fenster
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